

## Statement of Work

- I. **Title:** Preparation for and the Conduct of O<sub>3</sub> Exposure Modeling  
**Contractor Name:** ICF, Incorporated  
**Contract #:** EP-W-12-010  
**WA #: 1-12**

II. **Work Assignment Manager (WAM):**

WAM: Stephen Graham  
U.S. Environmental Protection Agency  
Office: OAR/OAQPS  
Division (Mail Code): HEID (C504-06)

109 TW Alexander Drive, C504-06  
Research Triangle Park, NC 27711  
Phone: (919) 541-4344

Alt. WAM: John Langstaff  
U.S. Environmental Protection Agency  
Office: OAR/OAQPS  
Division (Mail Code): HEID (C504-06)

109 TW Alexander Drive, C504-06  
Research Triangle Park, NC 27711  
Phone: (919) 541-1449

III. **Background:**

This statement of work (SOW) outlines tasks that will assist the work assignment manager (WAM) in performing ozone (O<sub>3</sub>) exposure modeling. The second draft O<sub>3</sub> Risk and Exposure Assessment (REA; US EPA, 2012) is being prepared by EPA staff and to be reviewed by the Clean Air Scientific Advisory Committee (CASAC) O<sub>3</sub> Panel in July 2013. Briefly, the REA is to estimate population exposures to O<sub>3</sub> using EPA's Air Pollution Exposure (APEX) model in 16 urban study areas of the US. Several air quality scenarios are being considered using 2006 through 2010 ambient air quality measurements: ambient concentrations 'as is' and O<sub>3</sub> levels adjusted to just meeting the current 8-hr standard (75 ppb) and alternative standards. In addition, staff are estimating exposures for four population groupings: the general population, school-age children (ages 5-18), asthmatic school-age children, and older persons.

Contractor assistance is needed continuing the development of APEX air quality input files in the 16 study areas and documenting the sources and approaches used to accomplish the completed task.

The WAM is authorized to provide technical direction in accordance with the contract. This SOW instructs the Contractor to perform the following tasks which are described below

#### **IV. Description and Tasks:**

##### **Task #1: Work Plan**

Within 20 days of the effective date of this WA, the Contractor shall submit a draft work plan outlining the approach to addressing this SOW, quality assurance procedures to be conducted, the schedule for the WA completion, and an estimate of the cost for completing the work.

Following review by the WAM, the Contractor shall modify the work plan to reflect comments and recommendations by the WAM (if any exist). This final work plan, if modified, shall be submitted by the Contractor within 7 days of receipt of WAM comments and recommendations.

##### **Task #2: Development of User-Ready APEX Air Quality Input Files**

Following completion of the Contractor work plan, the WAM will provide the Contractor with several data sets of raw ambient concentrations for each of the 16 study areas. The Contractor shall then process these air quality data sets to develop user-ready APEX .txt files.

For the existing or 'base' air quality there are 5 years (2006-2010) by 16 locations, thus a total of 80 files are to be generated.

For the current and alternative standards, there are 6 years (2006-2010, with two distinct sets for 2008 due to the form of the standards considered) by 16 locations by upwards to 5 adjusted air quality scenarios (55-75 ppb in 5 ppb increments), thus a total of 400 files are to be generated.

The Contractor shall name all air quality input files consistent with previously used file nomenclature highlighting the consolidated statistical area code, the air quality scenario, the averaging period, the year. The Contractor shall provide to the WAM, all of the above described newly developed APEX input air quality files for each of the 16 urban areas **no later than April 30, 2013**.

##### **Task #3: Documentation of Data and Approaches Used**

The Contractor shall provide the final SAS processing code used to develop the final air quality input files to the WAM **no later than April 30, 2013**. The Contractor shall submit a final technical memorandum briefly describing the air quality input data processing methodology **no later than May 15, 2013**.

#### **V. QA Requirements:**

Included in the work plan shall be an assessment of the quality of the data supporting the goals of the project. The Contractor shall also assess any limitations (if any) associated with the data and analytical approaches used in the draft and final technical memoranda and how these limitations may impact their use relative to this project's objectives.

## **VI. Deliverables:**

A phone conference shall be arranged and conducted by the Contractor to discuss the initiation of the tasks with the WAM. Subsequently, phone conferences shall be conducted by the Contractor on a bi-weekly basis to discuss with the WAM the progress and any issues associated with the tasks.

The Contractor shall adhere to the following schedule:

<b>Task</b>	<b>Deliverable</b>	<b>Delivery Schedule</b>
1	Work Plan	Within 20 days of effective date of WA
2	Final APEX air quality input files	April 30, 2013
3	SAS processing code and memorandum describing input data and processing	May 15, 2013

## **VII. Reporting Requirements:**

The Contractor shall provide monthly progress reports in accordance with the terms of the contract. The Contractor shall submit to the WAM, draft and final products in an electronic form that is readable by windows-based word-processing (Microsoft Word), graphics (Microsoft PowerPoint), spreadsheet (Microsoft Excel), or data processing (SAS) programs. The Contractor shall also provide electronic copies of final reports in PDF format.

## **VIII. References**

US EPA. (2012). Health Risk and Exposure Assessment for Ozone. First External Review Draft. EPA 452/P-12-001. U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards. Available at:  
<http://www.epa.gov/ttn/naaqs/standards/ozone/data/20120716healthrea.pdf>